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## Archaeological Surveys in the Highlands behind Siraf

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### Abstract

*This paper presents the results of reconnaissances taken during the Siraf excavations into the highlands behind the port. The purpose was to investigate the settlements which supported Siraf and the routes which connected the port to the great cities of Firuzabad and Shiraz. The routes were clearly marked with cisterns, stations and caravanserais, and even sections of paved roadway. Within the valley of Jam were architectural remains of Sirafi residences and evidence of glass production. The valleys of Galehdar and Dezhah were investigated for comparison. These archaeological remains testify to the complex social and economic system which supported this great port of the Persian Gulf.*

In March 1973, the Iranian Center for Archaeological Research and the Siraf Expedition undertook a joint survey of the high valleys behind Siraf.<sup>1</sup> The survey consisted of three trips (Fig. 1): (1) to the Jam valley, especially the eastern portion, and the routes linking this valley with Siraf; (2) to Galehdar, concentrating on the western end of this long valley; (3) further

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<sup>1</sup> This report is a summary of a chapter to be published in volume one of the final Siraf publications and was written in 1980. The author is indebted to David Whitehouse for his support of this research. The reconnaissance to Jam was undertaken with Jahangir Yasi, representing the Research Center of Archaeology and Art History of Iran, and has profited from his detailed report of our discoveries.

examination of the Jam valley and the routes to the west and north as far as the valley of Dezhgah.

The primary purpose of the survey was to ascertain the nature and extent of Sirafi settlement (9th - 11th centuries) near Jam in order to examine, through archaeological evidence, the assertions of medieval geographers that a close economic interdependence existed between the port and the highland valley (Istakhri, 128; Muqaddasi, 423). The Mountain of Jam, as it was known, was the final station on the caravan route from Shiraz and Firuzabad to Siraf. Jam was also a source of food, fruit and water for the port. The investigation of the archaeological remains in the Jam valley was expected, therefore, to provide an important regional amplification for the results of the excavations at Siraf. The survey of the valley of Galehdar, comparatively larger and more fertile for grain crops, provided a context for the evaluation of the Jam materials and greatly increased our understanding of the later history of Siraf (13th - 15th centuries), when this valley became an important cultural center (Aubin 1969).

Special attention was paid during the reconnaissance to the mapping of the ancient trade routes in the region, extending the surveys of Vanden Berghe, who worked southwards from



Firuzabad ( 1961, 165-75; cf. regional surveys by Gaube, 1973, 1979). Despite the difficulties inherent in tracing the ancient routes, numerous cisterns, rest houses and caravanserais were located and described and sections of paved road were identified. The remains of buildings constructed in the Sirafi style were discovered along the entire route between Siraf and Jam and between Siraf and Galehdar. Additional exploration in the western extension of the Jam valley and into the valley of Dezhgah followed the most likely route further inland though the identification with the period of Sirafi domination is less dramatic.

The exploration of the archaeological remains of these three valleys and the routes connecting them recalled the words of Sir Arnold Wilson, who passed through this region in 1911:

"Each valley was a social unit with its own leaders and headmen, its own reserves of grain and its own ancient traditions. Civilization here is of extreme antiquity. Almost every valley has its mounds, probably older than Babylon, its own pre-Islamic rock tombs and inscriptions and its own bit of paved roads, inherited probably from Sassanian times (Wilson 1942, 184).

While the ruins encountered rarely measured up to this romantic account, the varied and extensive archaeological remains raise intriguing questions on the patterns of social organization and economic history for this relatively remote region of southern Iran. Description of the archaeological evidence collected in these brief reconnaissance trips suggests both the achievements and the complexity of ancient and medieval southern Iran. The archaeological remains of the region behind Siraf may be outlined in the following cultural features:

#### **A. Trade routes.**

According to the present-day donkey drivers, the optimal route for transporting goods, especially in summer, should have a watering place every farsakh, i.e., after each hour of traveling time. While neither men nor animals need water this frequently, such a system is necessary for supporting large caravans of 50 to 200 animals. The cistern is thus a key feature along any well-traveled route. A tentative typology of cisterns according to form may be suggested. The routes between Taheri and Jam and Galehdar have cisterns exclusively of the form with parallel sides, rounded ends, generally 4 x 14 - 20m in size. The depth below surface was probably at least 3m. Many retain springing of vaults and probably all were intended to carry a vaulted roof over the entire length, as in the best preserved example, Sar



Gachinu (G2). At Maku, the virtues of this type of cistern were demonstrated by the availability of sweet, cold, fresh water. This form of cistern was already current in Sirafi times, the most probable period of extensive utilization and structural development along these routes.

A second type of cistern is the round basin, possibly not roofed, and always associated with mills, as at Mir Mo'ama (J19) and Berkeh Tul-e Qaleh (J28). Both of these examples have semi-circular buttresses, as do a few of the long type. This style of buttresses occurs at Siraf and is commonly found on buildings along the routes and in the valleys of Jam and Galehdar; it never occurs north of the Jam valley, suggesting that this was the limit of the influence of Sirafi masons or their building programs. The semi-circular buttress is provisionally taken as a diagnostic of Sirafi period architecture. Two further types of cisterns, the oval and large square forms, both seem to be associated with somewhat later architectural complexes. All the cisterns are made of rubble and saruj.

The cisterns along the routes rarely stand alone but are associated with various types of subsidiary buildings. The simplest and most common are one- and two-room buildings, generally 4 x 10m or 9 x 10m. All of these structures were

made of gatch and rubble and had vaulted roofs. Those examples with vaulting still extant show a semi-circular arch in section rather than a pointed vault. One end of these buildings appears to have been left open, so in fact they were small iwans; many open to the south, although the orientation is far from consistent. A second and rarer type of building is a tripartite structure (called talar-o tarhaneh), with three parallel iwans or a central iwan opening onto two flanking rooms.

More complicated structures have been described here as caravanserais. These fall into two broad categories: the courtyard type, with vaulted rooms along three or four walls (five examples found); and an iwan type, with a series of vaulted rooms opening toward one direction (two examples). The majority of these larger buildings were found on the Galehdar route; this route also has structures with both semi-circular and square buttresses (the later form of buttress is also found at Siraf). Together these indications suggest a different usage for the Galehdar route and over a longer period of time. The normal distance between centers of population is one day of traveling over these mountains; in other words, there is no valley more than a day's journey from the next valley. All the caravanserais are placed either at half-way points or within one farsakh of the destinations. They would have afforded only temporary shelter



for small groups of individuals rather than large caravans and presumably were used by late starters unable to arrive in the next valley by sunset.

### **B. The Jam valley.**

The two major sites in the valley are Minareh (J1) and Bid-e Khar (J31), according to local tradition the ancient cities of Baharistan and Negaristan. Both have glass factories. At Tul-e Khan is a typical Sirafi building: a single long room, generally 4 x 16m, with semi-circular buttresses and entrances along one side.

In contrast to these open settlements are the high fortified hill tops with evidence of Sirafi period occupation. Each of these fortified centers have Sirafi irrigation works in the immediate vicinity. A third type of settlement is the open cluster of houses, made of dry stone or, more rarely, gatch and rubble; these appear to have been farming communities dating to a variety of periods including the Sirafi. This type of settlement is most common to the west of the Jam valley and to the north.

### **C. The Galehdar valley.**

Only a very small portion of this large valley was investigated and no Sirafi buildings were found. The major site is the area of extensive ruins called Kuh-e Shekak (G7); a similar area is said



to exist farther down the valley to the east at Fal. The fortified hill tops appear to be non-Sirafi in date and are essentially places of refuge. The un-Sirafi character of the Galehdar valley is surprising, given the ruins along its route, and the possibility of a major Sirafi settlement farther down the valley (as suggested by Stein, 1937: 217 and 221) must not be discounted. In 1980 Heinz Gaube surveyed this part of the valley; he notes grave covers at Kabk-e Kuchik and describes pottery dating from the early Islamic through the Safavid period. Gaube went directly to Galehdar, where he found a cemetery and Imamzadeh with Safavid tomb covers and ceramics (probably Tomb-e Pir Mardi, G14 in our survey).

#### **D. The Routes to the west and north of Jam and the valley of Dezhgah.**

As mentioned above, there are no Sirafi remains along the routes farther inland, with the exception of the long round-ended cisterns. While the Riz valley may produce some Sirafi antiquities, its route to Jam is little used. The more usual and natural route connects this valley with Bandar Dayyer (west of Taheri). The general lack of sites along the northern route is more surprising and we have two possible explanations: either the present route differs substantially from the ancient one, or, more likely, the route beyond Jam was not under the jurisdiction



or at least the direct concern of the Sirafi merchants and was never developed to the same extent.

The valley of Dezhgah is a natural meeting for the routes going north. The settlement here is quite different in character due to the lack of stone and almost exclusive use of mud brick; the valley is also blessed with a river with sweet water flowing year round. The three corners of the valley were controlled by high square mounds (D1, D2, D5), each surrounded by a moat and a subsidiary settlement. Whether these mounds were functionally similar to those of the Jam valley must remain an open question; from a preliminary analysis of the ceramics, their period seems to be Sirafi or earlier. The low mounds of Sheikh abdullah (D4) and Dezhgah itself appear to be later.

## **Conclusions**

For those familiar with the archaeological cultures of southern Iran, the results of the survey produced a very limited picture of human settlement in the highlands behind Siraf. Evidence of more remote prehistoric periods (at Tomb-i Tir and Tomb-e Pudu in the Galehdar valley) testifies to the pioneering discoveries of Stein; Tul-e Charmu and Dowlatabad may be added for prehistoric occupation in the valley of Dezhgah. Although the Jam valley produced no prehistoric pottery, lithic

evidence was abundant in several areas. Unfortunately, the caves investigated were either sterile or occupied during much later times.

It is a long chronological leap from prehistory to the other archaeological materials recovered during the survey: that of the Sasanian and Islamic periods. To be sure, further analysis of our collections and further survey work may reveal earlier historic occupations in this region. Nevertheless the abundance of archaeological sites datable to the millennium, c. 500 to 1500 A.D., poses an interesting historical and archaeological problem, the solution for which almost certainly lies in the port of Siraf. As a broad generalization, intensive permanent settlement in the southern folds of the mountainous region seems to have depended on an economic focus on the littoral of the Persian Gulf. The archaeological history of the hinterland reproduces the pattern revealed at Siraf itself. First is a probable Sasanian occupation, the archaeology of which is frustratingly nebulous (Whitehouse 1971; Whitehouse and Williamson 1973) and difficult to distinguish from a transitional Sasanian--early Islamic occupation (lasting until the end of the 8th century). The period of Siraf's mercantile greatness and economic predominance was from the early 9th through the 11th centuries, termed the early Islamic or, in this study, the Sirafi period.



Occupation continued at Siraf on a greatly reduced scale through the 15th century, a period designated middle Islamic here.

There remains to be considered, however, the question of the broader significance of the survey of the high valleys. The port of Siraf had special relationships with its regional settlements which enabled it to become an entrepot for long distance trade. A system of rural production centers contributed to support the port; these products included water, grain, fruits (citrus and dates), livestock (mountain herding) and manufactured goods, especially perfumes (and glass containers), textiles, etc. The climatic dichotomy between the torrid port and the more temperate interior also suggest that an important function of the mountainous region was to serve as an escape mechanism during the humid summer season, both for health reasons and, to the extent that the mercantile population was Iranian, as a socio-psychological identification with highland culture and geography.

The highland settlements reflect commercial transit support mechanism (e.g., road maintenance and security, organization and feeding of transport animals and their human agents), agricultural with light manufacturing communities, and seasonal residential facilities. Within each valley, the settlements formed

important transport support centers, linking Siraf with the interior. The valley of Jam assumed a primacy in this role while Siraf was the predominant entrepot in the Persian Gulf, from the 9th through the 11th centuries. Production and residential functions were important secondary considerations. The valley of Galehdar in contrast seems more strongly oriented toward these latter functions during the later centuries (13th through 15th centuries). While Galehdar remains linked with a smaller, less important Siraf by a well-developed caravan route, the center of cultural connection for Galehdar is with Fal (Khunj-o-Fal) farther east. Aubin (1969: 24-25) has shown that the history of Fal is that of a regional center of religion and learning, an "urban" settlement complex within the mountains of southern Fars closely associated with Shiraz, the capital, and with commercial linkages with Siraf and other ports as secondary functions.

Archaeological and geographical research in the island region behind Siraf needs more research in conjunction with the port. The survey described here presents an archaeological context for Siraf and demonstrates that understanding of the economic and social organization of a complex system in the early Islamic period, one connecting Siraf with the great cities of Fars province, Firuzabad and Shiraz. The ruins of the Jam, Galehdar,



and Dezhgah valleys will greatly expand the significance of Siraf for the historical development of medieval southern Iran.

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